

WHAT IS CLAIMED IS:

1. A magnetically targetable carrier composition comprising a composite particle of activated carbon and iron, wherein the carbon is randomly distributed throughout the particle volume, wherein each particle includes a ratio of weight of iron to activated carbon in the range of from about 95:5 to about 50:50, and wherein each particle includes a ratio of weight of mitomycin C to a combined carbon and iron weight in the range of from about 1:100 to about 20:100.
2. The magnetically targetable carrier composition of Claim 1, wherein the ratio of weight of mitomycin C to a combined carbon and iron weight in the range of from about 1:100 to about 10:100.
3. The magnetically targetable carrier composition of Claim 1, wherein the ratio of weight of mitomycin C to a combined carbon and iron weight is about 5:100.
4. The magnetically targetable carrier composition of Claim 1, wherein the mean size of the particles is less than 5 μm .
5. The magnetically targetable carrier composition of Claim 1, wherein the mean size of the particles in the magnetic composition is between approximately 0.1 μm to approximately 20 μm .
6. The magnetically targetable carrier composition of Claim 1, wherein the mean size of the particle is from between about 0.5 μm to about 5 μm .
7. The magnetically targetable carrier composition of Claim 1, wherein a major dimension of about 95% of particles is between about 0.5 μm and about 5 μm .
8. The magnetically targetable carrier composition of Claim 1, wherein the activated carbon is selected from the group consisting of Norit A, B, E, and K, and chemically modified versions and combinations thereof.
9. The magnetically targetable carrier composition of Claim 1, wherein the activated carbon is a type KB carbon.
10. The magnetically targetable carrier composition of Claim 8 or Claim 9, wherein said weight ratio of iron to activated carbon is from about 85:15 to about 60:40.
11. The magnetically targetable carrier composition of Claim 8 or Claim 9, wherein the ratio of iron:carbon is 86:14 to 64:36.
12. The magnetically targetable carrier composition of Claim 8 or Claim 9, wherein the ratio of iron:carbon is 65%:35%.
13. The magnetically targetable carrier composition of Claims 1, 8 or 9, wherein the iron contains about less than 5% iron oxide.
14. The magnetically targetable carrier composition of Claim 8 or Claim 9, wherein the mean diameter of the particles is between about 0.6 and about 3.5 microns.

15. The magnetically targetable carrier composition of Claim 1, wherein said particles have an adsorption capacity for an additional biologically active substance of up to 20% of the mass of the particle.

16. The magnetically targetable carrier composition of Claim 1, wherein composite particles have a therapeutically effective amount of an additional biologically active substance adsorbed thereon, the biologically active substance being different from mitomycin C, and said carbon is activated carbon.

17. The magnetically targetable carrier composition of Claim 16, wherein said additional biologically active substance is selected from the group consisting of a drug, a radioactive substance, genetic material or combination thereof.

18. The magnetically targetable carrier composition of claim 16, wherein the one or more additional biologically active substances are selected from the group consisting of antibiotics, antifungals and an additional antineoplastic agents.

19. The magnetically targetable carrier composition of Claim 1, wherein said composite particles have a diagnostically effective amount of an additional biologically active substance absorbed thereon.

20. A formulation for a magnetically targetable carrier composition and mitomycin C, wherein the formulation comprises:

a magnetically targetable carrier composition of Claim 1; and
a delivery vehicle.

21. The formulation of Claim 20, wherein the concentration of mitomycin C is between about 0.5 to about 1 mg/mL before adsorption to the magnetically targetable carrier.

22. The formulation of Claim 20, wherein the concentration of mitomycin C is about 0.75 mg/mL before adsorption to the magnetically targetable carrier.

23. The formulation of Claim 20, wherein an excipient is in the formulation.

24. The formulation of Claim 23, wherein the excipient is mannitol.

25. The formulation of Claim 23, wherein the concentration of the excipient is about 5 to about 10% of the weight of the final preparation.

26. The formulation of Claim 25, wherein the concentration of excipient is about 6.7%.

27. The formulation of Claim 20, wherein the delivery vehicle comprises:

a salt
a polymer; and
a solvent.

28. The formulation of Claim 27, wherein the sugar is mannitol.

29. The formulation of Claim 27, wherein the concentration of mannitol is 100 mg/mL.

30. The formulation of Claim 27, wherein the polymer is carboxymethylcellulose.
31. The formulation of Claim 27, wherein the concentration of carboxymethylcellulose is 3 mg/mL.
32. The formulation of Claim 27, wherein the delivery vehicle comprises mannitol, carboxymethylcellulose, and water.
33. The formulation of Claim 27, wherein the delivery vehicle comprises about 100 mg mannitol, about 3 mg carboxymethylcellulose, and about 897 mg water.
34. The formulation of Claim 27, wherein the delivery vehicle comprises a solution with a viscosity of about 14 ± 2 cP when measured at 40C and 60 rpm in a Brookfield viscometer.